

Project Business Case

Project Name: Project Herakles

Project Short Name: Herakles

Agency: Job Service North Dakota

Business Unit/Program Area: Unemployment Insurance

Type of Project:

Application replacement

Date: April 19, 2005

Version: 1.0

Project Description:

Project Herakles is the procurement-planning phase of the Unemployment Insurance (UI) system rewrite. The objectives of this phase are to select a vendor and solution for the build phase of the project, and determine the budget necessary to complete the build phase. Once the budget is determined, financing options will be determined prior to the 2007 legislative session.

Business Need/Problem:

The principal driver for the overall system replacement project is the fact that JSND's mainframe system is antiquated and uses a programming language that is no longer widely supported. This situation makes it increasingly difficult to support our business processes and thus increasingly difficult to meet our customers' needs. In 2002, the Information Technology Support Service (ITSC), a U.S. Department of Labor contractor to provide information technology support services to State unemployment insurance programs, did a preliminary UI system replacement feasibility study. In 2002, ITSC could only identify six vendors in the world who offered customized programming in the programming language utilized by JSND's mainframe system.

That support is even more difficult to find today. Job Service anticipates that the ability to support the current system's programming language will be non-existent by the end of this decade. When the system is no longer supported, a substantial and very likely risk that the system will become inoperable arises. If that happens, payment of unemployment insurance taxes could not be properly recorded and credited; and UI claims could not be processed or paid.

In addition to the direct harm to the UI program's customers, the current system:

1. Does not allow efficient interface with other mission critical systems, especially those relating to interstate claims information.

2. Creates time delays in accessing important information needed by program managers.
3. Creates inefficient use of staff time to accomplish data entry.
4. Faces ever-increasing costs to maintain the operating software.
5. Necessitates the maintenance and operation of two drastically different environments, as the workforce support portion of the system was modernized (as Phase I of an overall strategic plan) in the period 1999-2003. Maintaining and operating these environments is expensive.
6. Impedes, because of the need for overnight batch processing, timely processing, 24X7 customer service availability, and capacity for self-service.

Of special note is the fact that JSND is under a corrective action plan to accomplish federally required system changes in its replacement system. Making those changes in the current system is cost prohibitive (see Cost Benefit Analysis section), and, additionally, would not be a wise investment of resources.

The ITSC feasibility study referred to above found that the level of maintenance to bring the system up to current demands, and keep it running, would add \$1 million per year to the operating budget.

A lower level of productivity for JSND staff affects employers and claimants, and is expensive. Administrative dollars are going into working the system that should be going into direct employer and claimant services.

Solution (as described in Proposed Solution):

In 2002, JSND performed the very crucial initial phase of the UI replacement portion of its strategic plan, the feasibility study. JSND sought an independent analysis of the viability of the current system, as well as an estimate of the cost of replacement calculated using high-level requirements analysis. As mentioned above, JSND contracted with the Information Technology Support Center (ITSC) to carry out this feasibility study.

The ITSC analysis determined a total replacement was more feasible than modifying the current legacy system. The cost estimate for replacement of the new system was from \$18.4 million to \$27.6 million. No appropriation was sought during the 2003 Legislative Session as JSND believed that a firmer cost estimate, based on responses to a specific Request for Proposals was necessary. The need for replacement, however, continues to escalate.

JSND will, with approval of the appropriation of Reed Act funds contained in Section 5 of Senate Bill No. 2016, commence the next major step in the overall replacement project, the procurement-planning phase. JSND plans to seek a more refined cost estimate, based on responses to an actual RFP, during the 2005-2006 legislative interim. JSND then would use the best responsive proposal, and its associated cost, as the basis for seeking a system replacement appropriation during the 2007 Legislative Session.

Since 2002, several states have commenced UI system replacement projects that are scheduled to be completed between February 2005 and September 2006. In addition, the ITSC has developed basic server-based UI Tax and Benefit software, and that source code is available to States at no charge. These developments may have the potential to reduce the development cost of a replacement system, so they need to be taken into account in the proposed procurement-planning project.

Consistency/Fit with Organization's Mission:

The existing systems (primarily employer tax and claimant benefits) that are remaining on the Unisys mainframe are a conglomeration of 30 years of coding, all having been "merged" together. In 1999, Job Service commenced, in accordance with its strategic plan, Phase I of its system modernization by moving its workforce support system from the mainframe to a web-based system.

The UI system modernization effort represents Phase II of JSND's overall information technology upgrade plan.

JSND's 2005 Business Plan lists the mainframe replacement project as Critical Success Factor 4 Tactic 2.

Cost Benefit Analysis

Anticipated Benefits:

With this project, JSND will implement the second phase of a strategic direction of replacing the UI system and the mainframe itself. At the end of this project, JSND will have received the following benefits:

- Selection of a solution and vendor for the build phase which best meets the overall needs of JSND and its customers.
- Known project consultant costs to provide to the legislature.
- Revised cost/benefit analysis to provide to the legislature.
- Identification of legislation necessary to accommodate the new system. This will help to identify the scope of the build phase.

Implications of Not Doing the Project:

As stated in the Business Need/Problem section, Job Service anticipates that the ability to support the current system's programming language will be non-existent by the end of this decade. When the system is no longer supported, a substantial and very likely risk that the system will become inoperable arises. If that happens, payment of unemployment insurance taxes could not be properly recorded and credited; and UI claims could not be processed or paid.

Cost Estimate:		
Estimated Costs:		
Type of Outlay	Initial	Remarks
Hardware	\$0	
Software	\$4,500	2 copies of Rational Request Pro
Supplies	\$0	
User Training	\$40,780	3 trips to other states for 7 staff
Consultant Services	\$529,230	\$250,000 ITSC + \$219,704 ITD for BPR/Requirements Development; \$59,526 ITSC for revised cost/benefit
Other:	\$238,856	Backfill for UI and IT staff; software/data/voice access for backfill and consultant staff; contingency fund
TOTAL	\$813,366	
Estimated Resources/Personnel:		
Internal staff hours	11,400	Core Team = 2000 hours, PM and teams = 9,400 hours
Contracted services	5,610	ITSC =1670 hours; ITD = 3468 hours
Costs will be funded as follows:		
Dollar Outlay Amount	Funding Source	
\$525,000	Federal Reed Act* funds	
\$288,366	Federal UI administrative grant funds allocated by the agency	
*Reed Act funds are made available to the several States through Congressional appropriation and are limited to Unemployment Insurance or public labor exchange purposes; and then only pursuant to specific State legislative appropriation.		
Cost/Benefit Analysis: As mentioned above, Job Service contracted with ITSC for a cost estimate and a cost/benefit analysis to be completed as part of the feasibility study referred to above. ITSC found that over a ten-year period, the cost of creating a new system would be \$6.659 million less than the cost of upgrading the current system. In addition, ITSC did some analysis of the external cost savings to the UI Trust Fund, and the customers, and the table below illustrates those savings.		

<p align="center">External Benefits Summary Data Start Year = Program Year 2003 (7/1/03 – 6/30/04) Projected Ten-Year Benefits With Inflation and No Workload Growth</p>	
<p>External Benefits (Realized Only With Acquisition of New Features)</p>	
Employer Savings	\$2,974,500
Claimant Savings	\$3,966,000
Savings to the trust fund	\$5,331,500
Total External Savings from UI Modernization	\$12,272,000
<p>The life cycle cost difference between the baseline and modernized systems is compared to:</p> <ul style="list-style-type: none"> ➤ The projected gains to the Trust Fund through improved overpayments management. ➤ The savings to employers through reduced staff time. ➤ The value of claimants' time saved by more efficient UI-claimant interfaces. <p><u>Project Risks:</u> Project risks are characteristics, circumstances, or features of the project environment that may have an adverse effect on the project or the quality of its deliverables. Known risks identified with this project have been included below. A plan will be put into place to minimize or eliminate the impact of each risk to the project.</p>	

Risk Area	Assessment		Impact	Mitigation
	Probability	Severity		
Because the budget and schedule are set, the project plan will be made to fit the schedule and budget constraints.	High	High	Quality of the end product may be compromised to complete the project on time and on budget.	<p>For the build phase of the project, a large change order budget must be planned for.</p> <p>Change orders appropriate for mandatory compliance and proven cost savings efficiencies will be made; "nice to have" features will not be a priority.</p> <p>Travel to state that is the owner of the selected solution to identify any adjustments necessary prior to finalizing a contract with the selected vendor.</p> <p>At the beginning of the build phase, perform a gap analysis against the selected system.</p> <p>JSND must be flexible during the build phase.</p>
Resources available to work on the project are limited.	High	High	<p>The quality of the end product may be compromised.</p> <p>Because limited staff is working on the project, organizational unit buy-in to the product may be diminished.</p>	<p>Backfill staff as budget will allow.</p> <p>Redirect work to other staff when feasible.</p> <p>Reduce workload where possible, e.g. limit enhancements to</p>

			<p>Because limited staff is working on the project, those assigned may feel stressed as they are setting the requirements for an extremely large project that will be used by many staff and the public.</p> <p>Agency may experience staff turnover.</p>	<p>the current mainframe system, for the duration of the project.</p> <p>Agency management must give top-down direction regarding the use of another state's solution.</p> <p>JSND must be cognizant of the pressures placed on staff during the project.</p> <p>Recognition of work completed must take place from both the Core Team and staff supervisors / management.</p> <p>Manage expectations.</p>
Normal day-to-day work may be neglected due to staff resources being assigned to the project.	Medium	Medium	Work may be backlogged. Customer expectations may not be met. Staff may become stressed due to workloads.	<p>Backfill staff as budget will allow.</p> <p>Realign services provided with the resources available.</p> <p>Manage expectations.</p>
Due to budget, schedule, and resource constraints, BPR will be based on future processes and will be taken from another state. The majority of the BPR will be performed without the main vendor.	High	Medium	<p>Requirements may reflect the way things are currently done. Solution evaluation may be more difficult if evaluating against current business processes.</p> <p>Because we are not documenting the current state, the gap analysis may be more difficult.</p>	<p>JSND is committed to adapting it's UI business processes to those that the selected system was built for.</p> <p>Manage expectations.</p> <p>Propose legislative changes as necessary.</p> <p>Develop an intense training plan to teach</p>

			<p>The legislative process may not be prepared to adapt another state's processes.</p> <p>JSND may not be prepared to adapt to new business processes.</p>	<p>staff how to do their jobs in the new system.</p> <p>Work with functional management to identify new job duties & responsibilities that staff may have to assume.</p>
Failure of this phase of the project may not be recognized until the build phase.	Medium	High	<p>Ramifications of not completing this phase correctly include:</p> <ul style="list-style-type: none"> ➤ Build phase budget will be based on many assumptions ➤ Cost overruns ➤ Schedule delays ➤ Loss of faith in the system and the viability of the solution for JSND ➤ Staff Burnout ➤ A product that better fits JSND needs may not be selected. 	<p>For the build phase of the project, a large change order budget must be planned for.</p> <p>Backfill staff as budget will allow.</p> <p>Develop and implement a good communications plan.</p> <p>Within the change control plan of the build phase, guidelines for change orders will be developed. Decisions will be necessary on which change orders can be implemented post-implementation.</p>
Agency staff may be unwilling to adopt new business processes.	Low	Medium	<p>Staff who dislike the new business processes may blame the system, the project, or the staff working on the project for the change.</p> <p>Agency may experience staff turnover.</p>	<p>Agency management must give top-down direction regarding the use of another state's solution.</p> <p>Manage expectations.</p> <p>Develop an organizational change management plan.</p> <p>Work closely with agency management</p>

				and HR team throughout the build phase to adjust as needed, plan transitions, and sooth fears.
JSND will likely have time and materials contracts with multiple vendors who do not have a contractual relationship with each other.	Medium	Medium	<p>Managing multiple vendors increases the complexity of project management.</p> <p>Because there is not a fixed bid contract, JSND will pay vendors without knowing the cost of the actual deliverables.</p>	<p>Develop and execute a project plan.</p> <p>JSND to act as liaison between the vendors.</p> <p>JSND to take full responsibility for project management.</p>
Build phase budget may be based on assumptions that law changes will or will not be made.	Medium	High	Budget estimate taken to the legislature may be incorrect.	<p>As part of the RFP process, require that vendors supply costs for requirements that may require law changes. Also to include the costs of modifications to the system should the laws not be changed.</p> <p>Budget taken to the legislature must consider the total cost of the project assuming the system must be modified to match North Dakota law.</p> <p>For the build phase of the project, a large change order budget must be planned for.</p>
IT staff may not be willing to adapt to new technology.	Low	High	<p>Agency may experience staff turnover.</p> <p>Reduced ability to maintain the new application.</p>	IT staff must participate in the project to a level sufficient enough to gain confidence in the new tools.

				<p>Sufficient training in the new tool sets must be provided.</p> <p>The organizational change management plan must address the change in technology.</p>